

## **REMARKS**

Firstly, it is noted that a Final Rejection on the CPA filed on February 19, 2002 is improper. In accordance with the §MPEP 706.07(b), it is not proper to make a final first Office Action in a continuing or substitute application where that application contains material which was presented in the earlier application after final rejection or closing of prosecution but was denied entry because the issue of new matter was raised. In order to expedite prosecution applicants are not going to petition the final rejection at this time, but are requesting that this amendment be entered.

### **Claim Rejections Under 35 U.S.C. §112**

Claim 1 has been rewritten to recite that the absorber material is an inorganic platelet-form substrate having a pale intrinsic color and a homogeneous composition of particles with a size distribution of 1 um to 60 um in size. One of the objects of the instant invention was to find laser-markable paper products which when treated with laser light achieve good legibility and crisp edges (see e.g. specification at page 1, fourth paragraph). The incorporation of inorganic platelet-form substrates having a particle size distribution of 1 to 60 microns, as an absorber material, was key to obtaining the instant invention (specification at page 2, second paragraph and Examples). A careful reading of the specification would reveal that the absorber material is not applied to the paper in multiple layers or coatings rather, it is applied directly to the to the raw paper or incorporated into the body of the paper to yield a homogeneous distribution of the absorber material (see e.g. specification at page 5, second paragraph).

Claim 1, as presently written, clearly points out and distinctly claims the present invention and reasonably conveys to one of skill in the art that the inventors had possession of the claimed invention at the time the application was filed. Therefore, the rejection of the claims under 112, first or second paragraph is clearly improper and should be withdrawn.

**Rejection of the Claims Under 35 U.S.C. §102(b) Should Be Withdrawn**

Claims 1-4, 9 and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by DE 4238378 A. Applicants respectfully traverse.

DE 4238378 A discloses a coating process for a substrate comprising a first and second coat with pigment lacquer formulations. The first coat lacquer formulation consists of particles less than 20 microns in size and the second coat lacquer formulation consists of particles 20-50 microns in size. DE 4238378 A provides for a first coat lacquer formulation which contains 5% wt of pigments with a particle size less than 20 microns and a second coat which contains 5% wt of pigments with a particle size of 20-50 microns (see Example 1). Thus, the two lacquer formulations contain in total a 10% wt of pigments of different particle sizes. Further, it is disclosed that the pigment volume concentration in the base coat is 8.7% (col. 2, lines 66-67).

Applicant's invention is related to absorber material which is a homogeneous composition of particles with a size distribution of 1  $\mu$ m to 60  $\mu$ m and the amount of said absorber material is 1% to 5% by weight based on the body of the paper. In the instant invention, the absorber material is not applied to the paper in multiple layers or coatings rather, rather it is applied (1) directly to the to the raw paper as a coating layer to yield a homogeneous distribution of the absorber material in the coating layer or (2) incorporated into the body of the paper to yield a homogeneous distribution of the absorber material throughout the paper itself, and now as recited in claim 15 (see e.g. specification at page 5, second paragraph). Clearly, the DE 4238378 reference does not disclose laser-markable paper with this feature. In order to have a proper legal basis for anticipation under §102, all material elements of a claim must be found in one prior art source, *In re Marshall* (CCPA 1978) 577 F.2d 301, 198 USPQ 344. It is clear that the pigment lacquer formulation disclosed in DE 4238378 A cannot be considered anticipatory to applicant's claimed invention. The rejection of the claims under §102 is clearly without a proper legal basis and should be withdrawn.

Claims 1, 7, 9, and 11-13 cannot be considered anticipatory by Gusi ('494). Gusi discloses an absorbing resin composition containing a urea based thermosetting resin, a cellulose-based reinforcement material and color changeable titanium dioxide particles. The absorbing composition disclosed by Gusi is prepared by a polymerization of the urea resin under an initial pressure of about 150 kg/cm<sup>2</sup> and a temperature of about 140 to 160° C. Cellulose is added to the urea resin at the early stage of polymerization and titanium dioxide is added after partial polymerization (col. 3, lines

44-52). Clearly, Gusi requires the mixture of urea, cellulose and titanium dioxide. Moreover, the urea resin and the cellulose need to be combined in certain weight ratios, such as e.g. 70:30, (col.3, lines 34-37). Also, there is no disclosure in Gusi that titanium dioxide is considered to be a platelet-form substrate. In fact, titanium dioxide particles are not platelet-shaped and would only be made platelet shaped if they were made that way, e.g, precipitated onto a substrate such as mica (specification p.3, lines 2-5).

By contrast, applicant's invention is directed to an inorganic platelet-form substrate. In view of this major distinction between applicant's invention and the composition disclosed by Gusi, there is clearly no proper legal basis for anticipation under §102 and the rejection should be withdrawn.

### **Rejection of the Claims Under 35 U.S.C. §103**

Claims 5 and 8 stand rejected under 35 U.S.C. 103 as being unpatentable over Gusi ('494) in view of Williams ('280). Applicants respectfully traverse.

As discussed above, Gusi discloses a laser markable composition which is comprised of urea based resin, a cellulose material and titanium dioxide. Gusi makes no disclosure of an absorber material, platelet-form or not. Williams discloses a laser markable white pigment composition which includes a first and second pigment wherein the first pigment is markable by a ultraviolet laser and the second pigment is nonmarkable in the ultraviolet region (col.1,lines 62-66) and wherein the pigments are combined in discreet ratios (col. 2, lines 1-3). Williams does not disclose a platelet-form absorber substrate. The pigment composition of William further discloses a fluoropolymer (col. 2, lines 23-26).

Claim 5 of the instant invention is directed an absorber material which is a mixture of different inorganic platelet-form substrates. There must be a suggestion or motivation to combine the pigments and fluuoropolymer of Williams with the laser markable composition of Gusi. Even if there were a suggestion to combine the Gusi reference with the Williams reference, the resultant combination would NOT yield applicant's claimed invention.

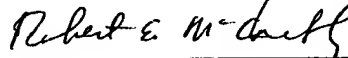
Similary, claim 8 of the instant invention is not rendered obvious in view of the disclosures of Gusi and Williams in view of the failure of either reference to disclose an absorber material which is

comprised of inorganic platelet-form substrates. Therefore, the rejection of the claims under §103 should be withdrawn.

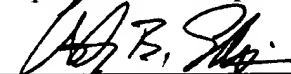
Favorable action on the application is earnestly solicited. The Examiner is kindly invited to contact the undersigned by telephone to discuss matters which may further the prosecution of this application or facilitate the allowability of some or all of the claims.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned "**Version with Markings to Show Changes Made To The Claims**".

Respectfully submitted,



Robert E. McCarthy (Reg. No. 46,044)  
Representative Capacity



Harry B. Shubin (Reg. No. 32,004)  
Attorney for Applicants

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
Arlington Courthouse Plaza I  
2200 Clarendon Boulevard, Suite 1400  
Arlington, Virginia 22201  
Direct Dial: 703-812-5322  
Facsimile: 703-243-6410  
Internet Address: [mccarthy@mwzb.com](mailto:mccarthy@mwzb.com)

**Filed: November 6, 2002**

HBS:REM

K:\Merck\2009\Reply to final rejection 5-06-02.wpd

**VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE CLAIMS**

**In the Claims:**

Claim 1 has been amended as follows:

1. (Amended) Laser-markable paper and board products wherein the paper comprises, as absorber material, ~~a single layer~~ an inorganic platelet-form substrate having a homogeneous composition with particle size distribution of 1  $\mu\text{m}$  to 60  $\mu\text{m}$  and the amount of said absorber material is 1% to 5% by weight based on the body of the paper.